

March 21, 2017

Navy modernizes Tomahawk Weapons Control System



A Tomahawk Land Attack Missile is launched from an Arleigh Burke-class destroyer. Ships, including Arleigh Burke class-destroyers, and nuclear powered cruise missile submarines will receive Tactical Tomahawk Weapons Control System (TTWCS) hardware and software upgrades. (U.S. Navy photo)

NAVAL AIR STATION PATUXENT RIVER, Md.-- After more than a decade in service, the Navy recently delivered an upgraded Tactical Tomahawk Weapons Control System (TTWCS) to the fleet.

The Tomahawk Weapons System Program Office (PMA-280) has maintained the system since 2004 with incremental updates, but to ensure future viability, more significant hardware and software modernization was required.

“It is critical that the Tomahawk Weapons System evolves to meet warfighter’s needs,” said PMA-280 Program Manager Capt. Mark Johnson. “The TTWCS upgrade ensures that it will remain effective against changing enemy threats.”

To prevent hardware obsolescence, the PMA-280 team replaced older systems with faster, more capable processors. They updated software to increase cybersecurity and offer a simplified user interface.

Weapons Control System Co-lead Lt. Cmdr. Paul Rotsch explained that updates to the

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interface were designed to streamline workflow and minimize potential for human error. The improved hardware and software, combined, increase the speed of engagement planning.

A hardware reconfiguration of workstations reduced the amount of space required to house equipment on a ship or submarine. Multiple systems can now be accessed from a single workstation and other systems were condensed, freeing up space in control rooms.

The hardware improvements that were released to the fleet earlier this year will be incorporated on ships and nuclear powered cruise missile submarines. Newly constructed Arleigh Burke-class destroyers will have a reduced TTWCS footprint incorporated into their design. All surface and subsurface platforms are slated to receive software upgrades.

The Tomahawk Weapons System is the U.S. Navy's premier, precision strike standoff weapon for attack of long range, medium range, and tactical targets. The Tomahawk Land Attack Missile is a subsonic cruise missile used for deep land attack warfare, launched from U. S. Navy surface ships and U.S. Navy and United Kingdom Royal Navy submarines.